

State of California
AIR RESOURCES BOARD

Resolution 05-46

October 20, 2005

Agenda Item No.: 05-10-4

WHEREAS, the Air Resources Board (ARB or Board) and the United States Environmental Protection Agency (U.S. EPA) have established health-based ambient air quality standards for ozone, and these standards are exceeded in a number of the State's air basins;

WHEREAS, Health and Safety Code sections 39003, 39500, 39602, and 41500 authorize the Board to coordinate, encourage, and review efforts to achieve and maintain the State and national ambient air quality standards;

WHEREAS, Health and Safety Code sections 39600 and 39605 authorize the Board to act as necessary to execute the powers and duties granted to and imposed upon the Board and to assist the local air pollution control and air quality management districts (districts);

WHEREAS, ARB staff has developed a proposed Suggested Control Measure (SCM) to control volatile organic compound (VOC) emissions from automotive coatings, and has brought the SCM to the Board for consideration;

WHEREAS, the proposed SCM is designed to be considered for adoption by the districts, and is intended to improve the clarity and enforceability of district automotive coatings rules and provide a basis for statewide uniformity in automotive coatings rules;

WHEREAS, under California law the districts have the primary legal authority for adopting control measures for automotive coatings, as provided in sections 39002, 40000, and 40001 of the Health and Safety Code, and the provisions in the SCM would apply to affected persons only if one or more districts adopts the SCM as a district rule;

WHEREAS, upon adoption by the districts, implementation of the SCM will reduce the emissions of VOCs from the application of automotive coatings;

WHEREAS, the California Environmental Quality Act (CEQA) and Board regulations require that no project having significant adverse environmental impacts shall be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts;

WHEREAS, ARB's regulatory program has been certified by the Secretary of Resources pursuant to Public Resources Code section 21080.5, and this certification would allow the ARB to include the environmental analysis for the SCM in an ARB Staff Report instead of preparing a formal environmental impact report (EIR);

WHEREAS, ARB staff has prepared a Staff Report for the proposed SCM;

WHEREAS, the Board has held a duly-noticed public meeting, in accordance with all applicable provisions of law, to consider approval of the proposed SCM for automotive coatings, and has heard and considered the comments presented by representatives of the Board, districts, affected industries, and other interested persons and agencies;

WHEREAS, the Board finds that:

The application of automotive coatings in the State emits about 20.7 tons per day of VOCs into the atmosphere;

The control and reduction of VOC emissions is necessary to attain and maintain the State and national ambient air quality standards for ozone;

Statewide implementation of the proposed SCM would reduce VOC emissions from the various coating categories and cleaning solvents by 15.8 tons per day;

To effectively control the emissions of VOCs from automotive coatings applied at widely dispersed locations, and to minimize the regulatory burden on the automotive coatings industry, automotive coatings standards should be uniform among districts which need automotive coatings rules;

The technology to control VOC emissions from automotive coatings to the extent provided in the SCM is reasonably available and cost-effective; and

ARB staff has conducted an economic analysis of the SCM and presented the conclusions and supporting documentation for this analysis in the Staff Report.

WHEREAS, the Board has determined, pursuant to the requirements of the CEQA and the Board's regulations, that the adoption and implementation of the proposed SCM will not have any significant adverse impacts on the environment.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the SCM for Automotive Coatings, with the modifications approved at the October 20, 2005, public meeting as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED that the modifications approved by the Board extend the compliance date by one year (from January 1, 2009 to January 1, 2010) for cleaning solvents and the automotive coating categories of primer sealer, single-stage coating, and adhesion promoter.

BE IT FURTHER RESOLVED that the Executive Officer is directed to forward the SCM to the districts for their consideration of its adoption in regulatory form.

BE IT FURTHER RESOLVED that the Board strongly encourages districts to adopt the SCM as approved by the Board, without modification, so that statewide uniformity in automotive coatings standards can be achieved.

BE IT FURTHER RESOLVED that the Executive Officer is directed to provide assistance to any district requesting assistance in adopting, interpreting, or implementing the SCM.

BE IT FURTHER RESOLVED that the Board directs the ARB Executive Officer to take the following actions: (1) monitor the progress of manufacturers in meeting the VOC limits in the SCM; (2) conduct technology assessments prior to the effective date for each of the proposed VOC limits that are lower than the most stringent limit currently in effect in district rules; and (3) propose any future modifications to the SCM that may be appropriate.

I hereby certify that the above is a true and correct copy of the Resolution 05-46, as adopted by the Air Resources Board.



Lori Andreoni, Clerk of the Board

Resolution 05-46

October 20, 2005

Identification of Attachment to the Resolution

Attachment A: Proposed Suggested Control Measure for Automotive Coatings, as set forth in Appendix A to the Staff Report: Initial Statement of Reasons, released September 21, 2005, with the modifications approved by the Board at the October 20, 2005, public meeting.

Attachment A

Suggested Control Measure for Automotive Coatings as Approved by the Board on October 20, 2005

California Air Resources Board
Suggested Control Measure for Automotive Coatings

1. Purpose

The purpose of this rule is to limit volatile organic compound (VOC) emissions from coatings and solvents associated with the coating of motor vehicles, mobile equipment, and associated parts and components.

2. Applicability

- 2.1 Except as provided in section 2.2, this rule is applicable to any person who supplies, sells, offers for sale, manufactures, or distributes any automotive coating or associated solvent for use within the District, as well as any person who uses, applies, or solicits the use or application of any automotive coating or associated solvent within the District.
- 2.2 This rule does not apply to:
 - 2.2.1 Any automotive coating or associated solvent that is offered for sale, sold, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.
 - 2.2.2 Any aerosol coating product.
 - 2.2.3 Any automotive coating that is sold, supplied, or offered for sale in 0.5 fluid ounce or smaller containers intended to be used by the general public to repair tiny surface imperfections.
 - 2.2.4 Any coating applied to motor vehicles or mobile equipment, or their associated parts and components, during manufacture on an assembly line.

3. Definitions

- 3.1 "Adhesion promoter" means a coating, which is labeled and formulated to be applied to uncoated plastic surfaces to facilitate bonding of subsequent coatings, and on which, a subsequent coating is applied.
- 3.2 "Aerosol Coating Product" means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marketing applications.
- 3.3 "Assembly Line" means an arrangement of industrial equipment and workers in which the product passes from one specialized operation to another until complete, by either automatic or manual means.

- 3.4 “Associated Parts and Components” means structures, devices, pieces, modules, sections, assemblies, subassemblies, or elements of motor vehicles or mobile equipment that are designed to be a part of motor vehicles or mobile equipment but which are not attached to motor vehicles or mobile equipment at the time of coating the structure, device, piece, module, section, assembly, subassembly, or element. “Associated parts and components” does not include circuit boards.
- 3.5 “Automotive Coating” means any coating or coating component used or recommended for use in motor vehicle or mobile equipment refinishing, service, maintenance, repair, restoration, or modification, except metal plating activities. Any reference to automotive refinishing or automotive coating made by a person on the container or in product literature constitutes a recommendation for use in motor vehicle or mobile equipment refinishing.
- 3.6 “Automotive Coating Component” means any portion of a coating, including, but not limited to, a reducer or thinner, toner, hardener, and additive, which is recommended by any person to distributors or end-users for use in an automotive coating, or which is supplied for or used in an automotive coating. The raw materials used to produce the components are not considered automotive coating components.
- 3.7 “Automotive Refinishing Facility” means any shop, business, location, or parcel of land where motor vehicles or mobile equipment or their associated parts and components are coated, including autobody collision repair shops. “Automotive Refinishing Facility” does not include the original equipment manufacturing plant where the motor vehicle or mobile equipment is completely assembled.
- 3.8 “CARB” means the California Air Resources Board.
- 3.9 “Cleaning Operations” means the removal of loosely held uncured adhesives, inks, coatings, or contaminants, including, but not limited to, dirt, soil, or grease, from motor vehicles, mobile equipment, associated parts and components, substrates, parts, products, tools, machinery, equipment, or general work areas.
- 3.10 “Clear Coating” means any coating that contains no pigments and is labeled and formulated for application over a color coating or clear coating.
- 3.11 “Coating” means a material which is applied to a surface and forms a film in order to beautify, preserve, repair, or protect such a surface.

- 3.12 “Color Coating” means any pigmented coating, excluding adhesion promoters, primers, and multi-color coatings, that requires a subsequent clear coating and which is applied over a primer, adhesion promoter, or color coating. Color coatings include metallic/iridescent color coatings.
- 3.13 “Electrostatic Spray Application” means any method of spray application of coatings where an electrostatic attraction is created between the part to be coated and the paint particles.
- 3.14 “Emission Control System” means any combination of capture systems and control devices used to reduce VOC emissions from automotive coating operations.
- 3.15 “Exempt Compounds” means, for the purposes of this rule, the compounds listed in sections 3.34.1 and 3.34.2.
- 3.16 “Graphic Arts Operation” means the application of logos, letters, numbers, or graphics to a painted surface by brush, roller, or airbrush.
- 3.17 “High-Volume, Low-Pressure (HVLP)” means spray equipment permanently labeled as such and which is designed and operated between 0.1 and 10 pounds per square inch, gauge, (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.
- 3.18 “Metallic/Iridescent Color Coating” means any coating that contains more than 0.042 pounds per gallon (5 grams per liter) of metal or iridescent particles as applied, where such particles are visible in the dried film.
- 3.19 “Mobile Equipment” means any device that may be drawn and/or driven on rails or a roadway including, but not limited to, trains, railcars, truck trailers, mobile cranes, bulldozers, street cleaners, and implements of husbandry or agriculture.
- 3.20 “Motor Vehicle” means any self-propelled vehicle, including, but not limited to, cars, trucks, buses, golf carts, vans, motorcycles, tanks, and armored personnel carriers.
- 3.21 “Multi-Color Coating” means any coating that exhibits more than one color in the dried film after a single application, is packaged in a single container, and hides surface defects on areas of heavy use, and which is applied over a primer or adhesion promoter.
- 3.22 “Person” shall have the same meaning as defined in Health and Safety Code section 39047.

- 3.23 "Pretreatment Coating" means any coating that contains a minimum of one-half (0.5) percent acid by weight and not more than 16 percent solids by weight necessary to provide surface etching and is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and adhesion.
- 3.24 "Primer" means any coating, which is labeled and formulated for application to a substrate to provide 1) a bond between the substrate and subsequent coats, 2) corrosion resistance, 3) a smooth substrate surface, or 4) resistance to penetration of subsequent coats, and on which a subsequent coating is applied. Primers may be pigmented.
- 3.25 "Primer Sealer" means any coating which is labeled and formulated for application prior to the application of a color coating for the purpose of color uniformity, or to promote the ability of the underlying coating to resist penetration by the color coating.
- 3.26 "Single-Stage Coating" means any pigmented coating, excluding primers and multi-color coatings, labeled and formulated for application without a subsequent clear coat. Single-stage coatings include single-stage metallic/iridescent coatings.
- 3.27 "Solvent" means a VOC-containing fluid used to perform cleaning operations.
- 3.28 "Spot Repair" means repair of an area on a motor vehicle, piece of mobile equipment, or associated parts or components of less than 1 square foot (929 square centimeters).
- 3.29 "Temporary Protective Coating" means any coating which is labeled and formulated for the purpose of temporarily protecting areas from overspray or mechanical damage.
- 3.30 "Transfer Efficiency" means the amount of coating solids adhering to the object being coated divided by the total amount of coating solids sprayed, expressed as a percentage.
- 3.31 "Truck Bed Liner Coating" means any coating, excluding clear, color, multi-color, and single stage coatings, labeled and formulated for application to a truck bed to protect it from surface abrasion.
- 3.32 "Underbody Coating" means any coating labeled and formulated for application to wheel wells, the inside of door panels or fenders, the underside of a trunk or hood, or the underside of the motor vehicle.

- 3.33 “Uniform Finish Coating” means any coating labeled and formulated for application to the area around a spot repair for the purpose of blending a repaired area’s color or clear coat to match the appearance of an adjacent area’s existing coating.
- 3.34 “U.S. EPA” means the United States Environmental Protection Agency.
- 3.35 “Volatile Organic Compound (VOC)” means any volatile compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following:
- 3.35.1 methane;
- methylene chloride (dichloromethane);
 - 1,1,1-trichloroethane (methyl chloroform);
 - trichlorofluoromethane (CFC-11);
 - dichlorodifluoromethane (CFC-12);
 - 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113);
 - 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114);
 - chloropentafluoroethane (CFC-115);
 - chlorodifluoromethane (HCFC-22);
 - 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123);
 - 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124);
 - 1,1-dichloro-1-fluoroethane (HCFC-141b);
 - 1-chloro-1,1-difluoroethane (HCFC-142b);
 - trifluoromethane (HFC-23);
 - pentafluoroethane (HFC-125);
 - 1,1,2,2-tetrafluoroethane (HFC-134);
 - 1,1,1,2-tetrafluoroethane (HFC-134a);
 - 1,1,1-trifluoroethane (HFC-143a);
 - 1,1-difluoroethane (HFC-152a);
 - cyclic, branched, or linear completely methylated siloxanes;
 - the following classes of perfluorocarbons:
 - (A) cyclic, branched, or linear, completely fluorinated alkanes;
 - (B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
 - (C) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
 - (D) sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds only to carbon and fluorine; and
- 3.35.2 the following low-reactive organic compounds which have been exempted by the U.S. EPA:
- acetone;
 - ethane;
 - parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene);
 - perchloroethylene;
 - methyl acetate; and
 - tertiary butyl acetate (tBAc).

3.36 VOC Content

3.36.1 "VOC regulatory for Coatings" means VOC in grams per liter of coating, excluding water and exempt compounds, and shall be calculated by the following equation:

$$\text{VOC regulatory content} = \frac{W_v - W_w - W_{ec}}{V_m - V_w - V_{ec}}$$

3.36.2 "VOC actual for Coatings" means VOC in grams per liter of material shall be calculated using the following equation:

$$\text{VOC actual content} = \frac{W_v - W_w - W_{ec}}{V_m}$$

3.36.3 "VOC content for Solvents" means VOC in grams per liter of material shall be calculated by the following equation:

$$\text{VOC content} = \frac{W_v - W_w - W_{ec}}{V_m}$$

Where:

VOC content = amount of volatile organic compounds in grams/liter

W_v = weight of volatiles in grams

W_w = weight of water in grams

W_{ec} = weight of exempt compounds in grams

V_m = volume of material (coating or solvent, as applicable) in liters

V_w = volume of water in liters

V_{ec} = volume of exempt compounds in liters

4. Standards

- 4.1 **Coating Limits.** No person shall apply to any motor vehicle, mobile equipment, or associated parts and components, any coating with a VOC regulatory content, as calculated pursuant to section 3.36.1, in excess of the following limits, except as provided in section 4.3:

Coating Category	VOC regulatory limit, as applied, in grams/liter (pounds per gallon*)	
	effective January 1, 2009	effective January 1, 2010
Adhesion Promoter		540 (4.5)
Clear Coating	250 (2.1)	
Color Coating	420 (3.5)	
Multi-Color Coating	680 (5.7)	
Pretreatment Coating	660 (5.5)	
Primer	250 (2.1)	
Primer Sealer		250 (2.1)
Single-Stage Coating		340 (2.8)
Temporary Protective Coating	60 (0.5)	
Truck Bed Liner Coating	310 (2.6)	
Underbody Coating	430 (3.6)	
Uniform Finish Coating	540 (4.5)	
Any other coating type	250 (2.1)	

*English units are provided for information only.

- 4.2 **Most Restrictive VOC Limit.** If anywhere on the container of any automotive coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a person, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in section 4.1, then the lowest VOC content limit shall apply.
- 4.3 **Alternative Compliance.** Instead of complying with the VOC content limits specified in section 4.1, a person may use an emission control system that has been approved, in writing, by the Executive Officer or Air Pollution Control Officer of the District and which achieves an overall control efficiency of at least 85 percent as determined pursuant to sections 6.5 and 6.6. Any approved system emission control must be maintained and used at all times in proper working condition.
- 4.4 **Prohibition of Possession.** No person shall possess at any automotive refinishing facility, any automotive coating that is not in compliance with section 4.1 or 4.3, as applicable. Effective January 1, 2010, no person

shall possess at any automotive refinishing facility, any solvent with a VOC content greater than 25 grams per liter.

- 4.5 **Prohibition of Sale or Manufacture.** No person shall manufacture, blend, repackage for sale, supply, sell, offer for sale, or distribute within the District any coating with a VOC content in excess of the limits specified in section 4.1.

Notwithstanding the provisions of this section, a person may manufacture, blend, repackage for sale, supply, sell, offer for sale, or distribute a coating with a VOC content in excess of the limits specified in section 4.1 under the following circumstances and provided all of the requirements of section 5.6 are also met:

4.5.1 The coating is for use exclusively within an emission control system as allowed in section 4.3, or

4.5.2 The coating is for use outside the District.

- 4.6 **Prohibition of Specification.** No person shall solicit or require the use of, or specify the application or use of any coating or solvent on a motor vehicle or mobile equipment, or associated parts and components, if such use or application results in a violation of this rule. This prohibition shall apply to all written or oral contracts, including, but not limited to, job orders, under the terms of which any coating or solvent that is subject to the provisions of this rule is to be used or applied. This prohibition shall not apply to coatings that meet the criteria specified in section 4.5.

- 4.7 **Coating Application Methods.** No person shall apply any coating to any motor vehicle, mobile equipment, or associated parts and components unless one of the following application methods is used:

4.7.1 Brush, dip, or roller.

4.7.2 Electrostatic spray.

4.7.3 High-Volume Low-Pressure (HVLP) spray equipment.

4.7.4 Use of a spray gun: If a spray gun is used, the end user must demonstrate that the gun meets the HVLP definition in section 3.17 in design and use. A satisfactory demonstration must be based on the manufacturer's published technical material on the design of the gun and by a demonstration of the operation of the gun using an air pressure tip gauge from the manufacturer of the gun.

- 4.7.5 Any alternative method that achieves a transfer efficiency equivalent to, or higher than, the application methods listed in sections 4.7.1, 4.7.2, or 4.7.3 as determined per section 6.9. Written approval from the Executive Officer or Air Pollution Control Officer of the District shall be obtained for each alternative method prior to use.

section 4.7 does not apply to underbody coatings, graphic arts operations, truck bed liner coatings, or any coating use of less than one (1) fluid ounce (29.6 milliliters).

4.8 Solvent Limits and Evaporative Loss Minimization

- 4.8.1 Effective January 1, 2010, each solvent present at any automotive refinishing facility shall not exceed a VOC content of 25 grams per liter as calculated pursuant to section 3.36.3.
- 4.8.2 Solvent-laden materials shall be stored in closed containers.
- 4.8.3 All automotive coating components, automotive coatings, and solvents shall be stored in closed vapor-tight containers.
- 4.8.4 No person shall clean spray equipment unless a closed system is used. However, equivalent control equipment can be used if the Executive Officer or Air Pollution Control Officer of the District approves it in writing prior to use.
- 4.8.5 All waste automotive coating components, automotive coatings, and solvents shall be stored in closed vapor-tight containers, except while adding to or removing them from the containers.

5. Administrative Requirements

5.1 Compliance Statement Requirement

- 5.1.1 For each individual automotive coating or automotive coating component, the manufacturer and repackager shall include the following information on product data sheets, or an equivalent medium:
- 5.1.1.1 The VOC actual for coatings and VOC regulatory for coatings, expressed in grams per liter;
 - 5.1.1.2 The weight percentage of volatiles, water, and exempt compounds;
 - 5.1.1.3 The volume percentage of water and exempt compounds; and,
 - 5.1.3.4 The density of the material (in grams per liter).

5.1.2 For each individual ready to spray mixture (based on the manufacturer's and repackager's stated mix ratio), the manufacturer and repackager shall include the following information on product data sheets, or an equivalent medium:

5.1.2.1 The VOC actual for coatings and VOC regulatory for coatings, expressed in grams per liter;

5.1.2.2 The weight percentage of volatiles, water, and exempt compounds;

5.1.2.3 The volume percentage of water and exempt compounds; and,

5.1.2.4 The density of the material (in grams per liter).

5.1.3 The manufacturer and repackager of solvents subject to this rule shall include the VOC content as supplied, calculated pursuant to section 3.36.3, expressed in grams per liter, on product data sheets, or an equivalent medium.

5.2 Labeling Requirements

5.2.1 The manufacturer and repackager of automotive coatings or automotive coating components shall include on all containers the applicable use category(ies), and the VOC actual for coatings and VOC regulatory for coatings, as supplied, expressed in grams per liter.

5.2.2 The manufacturer and repackager of solvents subject to this rule shall include on all containers the VOC content for solvents, as supplied, expressed in grams per liter.

5.3 **Maintenance of Records.** Records required by this rule shall be retained for a minimum of three years and made available for inspection by District personnel upon request.

5.4 **Record Keeping Requirements.** Any person who uses coatings or solvents subject to this rule shall maintain and have available at all times, on site, the following:

5.4.1 A current list of all coatings and solvents used that are subject to this rule. This list shall include the following information for each coating and solvent:

5.4.1.1 material name and manufacturer

5.4.1.2 application method

5.4.1.3 coating type (as listed in section 4.1) and mix ratio specific to the coating

5.4.1.4 VOC actual for coatings and VOC regulatory for coatings, as applied, or VOC content for solvent.

- 5.4.1.5 whether the material is a coating or solvent.
- 5.4.2 Current manufacturer specification sheets, material safety data sheets, technical data sheets, or air quality data sheets, which list the VOC actual for coatings and VOC regulatory for coatings of each ready-to-spray coating (based on the manufacturer's stated mix ratio) and automotive coating components, and VOC content of each solvent.
- 5.4.3 Purchase records identifying the coating type (as listed in section 4.1), name, and volume of coatings and solvents.
- 5.5 **Record Keeping Requirements for Emission Control Systems.** Any person using an emission control system shall maintain daily records of key system operating parameters which will demonstrate continuous operation and compliance of the emission control system during periods of VOC emission producing activities. "Key system operating parameters" are those parameters necessary to ensure or document compliance with section 4.3, including, but not limited to, temperatures, pressure drops, and air flow rates.
- 5.6 **Record Keeping Requirements for Prohibition of Sale.** Any person claiming an exception specified in section 4.5 shall keep a detailed log of each automotive coating component and automotive coating manufactured, blended, repackaged for sale, supplied, sold, offered for sale, or distributed showing:
 - 5.6.1 The quantity manufactured, blended, repackaged for sale, supplied, sold, offered for sale, or distributed, including size and number of containers;
 - 5.6.2 The VOC regulatory for coatings;
 - 5.6.3 The VOC actual for coatings;
 - 5.6.4 To whom they were supplied, sold, offered for sale, or distributed, or for whom they were manufactured, blended, or repackaged for sale including the name, address, phone number, retail tax license number, and valid district permit number; and,
 - 5.6.5 The specific exception being utilized under section 4.5.
- 6. **Test Methods.** The following test methods are incorporated by reference herein, and shall be used to test coatings and solvents subject to the provisions of this rule. A source is in violation of this rule if any measurement by any of the listed applicable test methods exceeds the standards of this rule.

- 6.1 **Methyl Acetate, Acetone, t-Butyl Acetate, and PCBTF Content.** The quantity of methyl acetate, acetone, t-butyl acetate, and parachlorobenzotrifluoride (as specified in sections 3.15, 3.35, and 3.36) shall be determined by using ASTM Method D6133-02: "Standard Test Method for Acetone, *p*-Chlorobenzotrifluoride, Methyl Acetate or *t*-Butyl Acetate Content of Solventborne and Waterborne Paints, Coatings, Resins, and Raw Materials by Direct Injection Into a Gas Chromatograph" (February 2003).
- 6.2 **Acid Content.** Measurement of acid content (as specified in section 3.23) shall be determined by using ASTM D1613-03 "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products" (October 2003).
- 6.3 **Alternative Test Methods.** The use of other test methods which are determined to be equivalent or better and approved, in writing, by the Executive Officer or Air Pollution Control Officer of the District, CARB, and U.S. EPA may be used in place of the test methods specified in this rule.
- 6.4 **VOC Content of Coatings or Solvents.** VOC content (as specified in sections 3.36, 4.1, and 4.8.1) shall be determined by U.S. EPA Method 24 as set forth in Appendix A of Title 40 of the Code of Federal Regulations (40 CFR) Part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings".
- 6.5 **Control Efficiency.** When either U.S. EPA Method 25, 25A, or 25B is used to determine VOC emissions, control device equivalency (as specified in section 4.3) shall be determined as specified in U.S. EPA's "Guidelines for Determining Capture Efficiency," (January 9, 1995) and 40 CFR 51, Appendix M, Methods 204 –204f as applicable.
- 6.6 **Determination of Alternative Compliance.** Alternative compliance (as specified in section 4.3) shall be determined by U.S. EPA Method 25, 25A, or 25B, Title 40 Code of Federal Regulations, Part 60, Appendix A as applicable. A source is in violation if the measured VOC emissions, as measured by any of the test methods, exceed the standards specified in section 4.3.
- 6.7 **Metallic Content.** The metallic content of a coating (as specified in section 3.18) shall be determined by South Coast Air Quality Management District Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-ray" (July 1996).

- 6.8 **Exempt Compound Content.** Exempt compound content, other than as determined pursuant to section 6.1, (as specified in sections 3.15, 3.35 and 3.36) shall be determined by using CARB Method 432, "Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings"(September 12, 1998); CARB Method 422, "Determination of Volatile Organic Compounds in Emissions from Stationary Sources" (January 22, 1987); or, South Coast Air Quality Management District (SCAQMD) Method 303-91, "Determination of Exempt Compounds" (February 1993).
- 6.9 **Transfer Efficiency.** Spray equipment transfer efficiency (as specified in sections 3.30 and 4.7.5) shall be determined by using South Coast Air Quality Management District "Spray Equipment Transfer Efficiency Test Procedure for Equipment User" (May 24, 1989).
- 6.10 **HVLP Equivalency.** Spray equipment HVLP equivalency (as specified in section 4.7.4) shall be determined by using South Coast Air Quality Management District "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns" (September 26, 2002).
7. **Construction of Headings.** Section and subsection headings do not in any manner affect the scope, meaning, or intent of the provisions of this Suggested Control Measure.
8. **Severability.** Each part of this Suggested Control Measure shall be deemed severable, and in the event that any part of this Suggested Control Measure is held to be invalid, the remainder of this Suggested Control Measure shall continue in full force and effect.